JULY 2015

SAFETY IN NUMBERS

Large Trucks

It's hard not to be intimidated when encountering a large truck on our Nation's roadways. Large trucks are heavy and completely outsize most other road users, including drivers and occupants of passenger cars, vans, pickup trucks, SUVs, motorcycles, and pedestrians and bicyclists. It's important for all drivers and pedestrians to learn how large trucks operate–including their safety equipment–so everyone can be safer around these large vehicles.

In 2013, an estimated 326,000 crashes involved large trucks. In 69,000 of those crashes someone was injured and in over 3,500 of the crashes, someone died. In fact, 3,964 people died on our roads in crashes involving large trucks in 2013. The majority of those who died (2,834 people) were the occupants of other vehicles, many times a smaller passenger vehicle, involved in a large-truck crash. That's not to say, however, that the drivers and passengers of large trucks are not also in danger (691 fatalities were large-truck occupants).

Large trucks don't operate the same way that passenger vehicles operate. Among their many differences, they have different braking systems and longer stopping distances, have a larger turning radius, have larger blind spots, and have more tires and axles - all of which affect their mobility, speed, and operation. As important as it is for large-truck drivers to understand their own vehicles and receive appropriate training and licensing, it is also important for other road users to understand how to properly maneuver around large trucks.

For more information, visit:

www.NHTSA.gov

Crashes:

12% of all fatal crashes in 2013 involved large trucks

4% of all injury crashes in 2013 involved large trucks

6% of all property-damage-only crashes in 2013 involved large trucks

Restraint Use:

41% of large-truck drivers who died in crashes were not wearing seat belts

77% of large-truck passengers who died in crashes were not wearing seat belts (some may have been in sleeper berths at the time of the crash)

Improvements From 2004-2013:

24% decline in all fatalities in large-truck crashes

30% decline in fatalities among occupants of other vehicles involved in large-truck crashes

U.S. Department of Transportation
National Highway Traffic Safety Administration

NHTSA
www.nhtsa.gov

THE PROBLEM

Federal Motor Carrier Safety Administration

FMCSA regulates commercial motor vehicle drivers and the operation of commercial motor vehicles – whether they are operated by a company with a fleet of trucks or an independent driver. The regulations aim to protect all vehicles and road users on our Nation's roadways. The following are some of the FMCSA requirements that help keep you and our large-truck drivers safe:

- **Hours of service** – This requirement specifies the minimum number of hours a truck driver must have as off-duty hours, the maximum number of hours of drive time, and the rules for rest breaks. Requirements are different for passenger-carrying vehicles and property-carrying vehicles. These requirements ensure that large-truck drivers have the appropriate amount of rest necessary to safely operate the vehicle.
- **Driver qualifications** – Ensures that drivers are properly licensed, medically qualified, and not using drugs or alcohol.
- **Parts and accessories necessary for safe operation** – Discusses required safety features on large trucks, including:
  - Color, location, and position of lights;
  - Reflectors and reflective markings;
  - Tires and braking systems; and
  - Cargo securement, with separate regulations for vehicles carrying different loads.
- **Texting** – Directly prohibits any commercial motor vehicle driver from texting (manually entering alphanumeric text into, or reading text from, an electronic device) while driving.

What data tells us

- A medium truck has a gross vehicle weight rating (GVWR) between 10,001 and 26,000 pounds. A heavy truck has a GVWR of at least 26,001 pounds. NHTSA's National Center for Statistics and Analysis defines large trucks as vehicles with a GVWR over 10,001 pounds.
- In 2013, there were 3,964 people killed and an estimated 95,000 people injured in crashes involving large trucks. An estimated 342,000 large trucks were involved in police-reported traffic crashes during 2013.
- Of the people *killed* in crashes involving large trucks, 71 percent were occupants of other vehicles involved in the crash. Of the people *injured* in crashes involving large trucks, 72 percent were occupants of other vehicles.
- In 2013, large trucks accounted for 4 percent of all registered vehicles and 9 percent of total vehicle miles traveled on the Nation's roadways. Large trucks accounted for 9 percent of all vehicles involved in fatal crashes and 3 percent of all vehicles in injury and property-damage-only crashes.
- In 2013, 64 percent of fatal crashes involving large trucks occurred in rural areas. Seventy-four percent of fatal large-truck crashes occurred on weekdays. Of those weekday crashes, almost three-fourths (73%) occurred between 6 a.m. and 6 p.m.
- Two percent of large-truck drivers involved in fatal crashes had blood alcohol concentrations (BACs) of .08 g/dL or higher in 2013. By comparison, for drivers of other types of vehicles involved in fatal crashes in 2013, the percentages of drivers with BACs of .08 g/dL or higher were 23 percent for passenger cars, 21 percent for light trucks, and 27 percent for motorcycles.
- For 76 percent of large trucks in all police-reported crashes, the most harmful event for the truck in the crash was a collision with another motor vehicle.

Heavy Vehicle Electronic Stability Control

In June 2015, NHTSA issued a new standard to require Electronic Stability Control (ESC) for truck tractors and large buses. ESC systems on these heavy vehicles are similar to light vehicles, which help a driver maintain directional control of a vehicle but also add roll stability control technology. These ESC systems will significantly reduce the number of heavy-vehicle rollover and loss-of-control crashes. NHTSA estimates that heavy vehicle ESC systems may prevent up to 56 percent of untripped rollover crashes and 14 percent of loss-of-directional-control crashes. The heavy vehicle ESC rule:

- Applies to heavy trucks and large buses with a GVWR greater than 26,000 pounds;
- Emphasizes that ESC systems are driver assistance systems. The ESC system helps a driver maintain control of the vehicle by automatically braking individual wheels and reducing engine torque;
- Is estimated to prevent as many as 1,759 crashes and save 49 lives each year, once all vehicles are equipped with the technology; and
- Becomes effective for most large trucks on August 1, 2017, and most large buses on June 24, 2018.

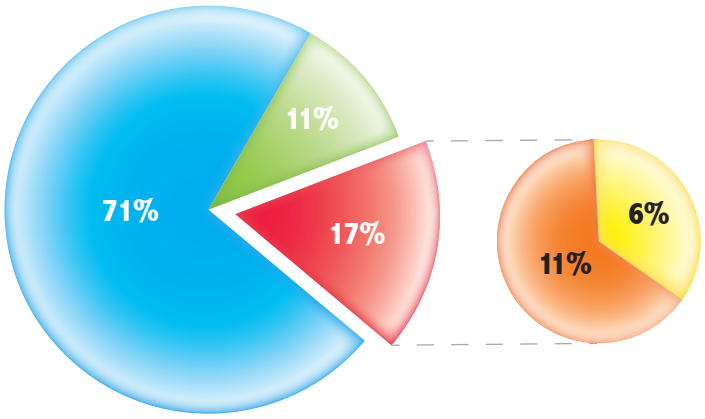
Heavy Vehicle Stopping Distance

Effective August 1, 2011, NHTSA requires new truck tractors to meet a more stringent stopping distance performance requirement to reduce the number of fatalities and injuries associated with crashes involving tractor trailer combinations and combination vehicles. The Stopping Distance rule:

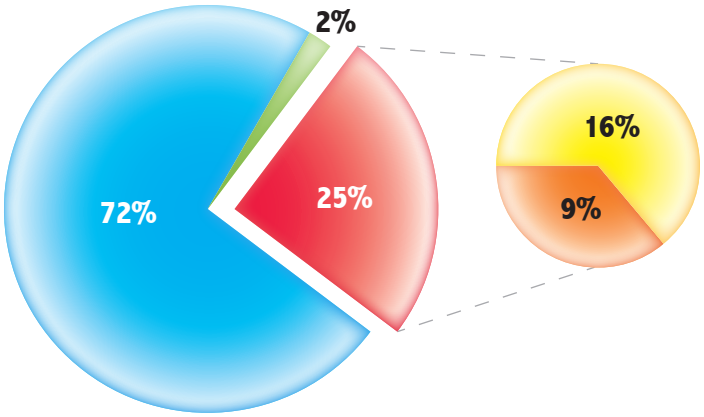
- Specifies a 30-percent reduction in stopping distance compared to the previous requirement;
- Requires new truck tractors to stop within 250 feet from a speed of 60 mph when fully loaded; and
- Is expected to save 227 lives and prevent 300 serious injuries every year when all truck tractors are equipped with the enhanced braking systems.

THE FACTS

People Killed in Large-Truck Crashes in 2013



People Injured in Large-Truck Crashes in 2013



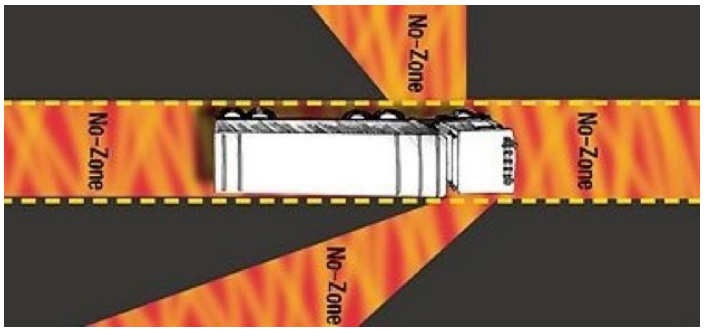
Occupants of other vehicles

Occupants of large trucks
- single-vehicle crashes
- multiple-vehicle crashes

Nonoccupants
(e.g., pedestrians and bicyclists)

Source: Fatality Analysis Reporting System (FARS) 2013 Annual Report File (ARF).
Note: Percentages may not total 100 due to rounding.

No-Zones



No-Zones are danger areas around trucks and buses where crashes are more likely to occur. Some of these "No-Zones" are actual blind spots where your car "disappears" from the view of the truck or bus driver.

Side No-Zones - Don't hang out in the blind spots on the sides of large trucks.

Rear No-Zones - Avoid tailgating. The truck driver can't see your vehicle, and you can't see ahead of the truck.

Front No-Zones - Pass safely. Don't cut in front of a truck. Trucks need more room to stop than passenger vehicles.

Impact Point of Fatal Crashes Between a Large Truck and Another Vehicle

Impact Point on Large Truck	Impact Point on Other Vehicle				
	Front	Left Side	Right Side	Rear	Total
Front	31%	15%	11%	6%	64%
Left Side	9%	1%	1%	0%	11%
Right Side	5%	0%	0%	0%	6%
Rear	19%	0%	0%	0%	20%
Total	64%	17%	13%	7%	100%

Source: FARS 2013 ARF.
Note: Percentages may not total 100 due to rounding.

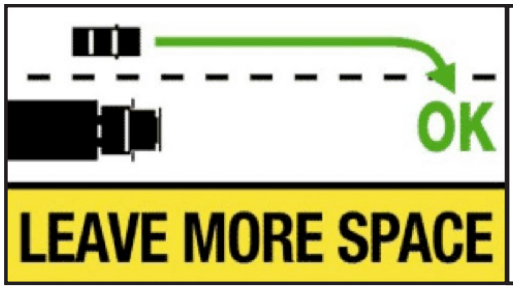
The majority of fatal crashes involving a large truck and one other vehicle happen in head-on or partial head-on collisions, when the front of the large truck contacts the front of the other vehicle. The next most frequent type of occurrence is the front of the other vehicle into the rear of the large truck. NHTSA and FMCSA both stipulate a rear-impact guard for large trucks to prevent vehicle underride.

WHAT YOU CAN DO

Since we all share our roadways with large trucks, here are some tips for safe maneuvering around them:

- Be aware of a truck's blind spots and do not assume that a truck driver can see you. If you cannot see the truck driver in his side mirrors, he most likely cannot see you either.
- Do not follow too closely behind a truck. You can't see what is happening in front of the truck or around the sides of the truck. If you need to brake suddenly, you run the risk of a rear-end crash or, worse, an underride in which your vehicle runs under the rear of the truck.
- Remember, it takes much longer for a truck to stop than it does a passenger car. For this reason, do not cut in front of a truck and do not make an unsafe turn across a truck's path.
- Follow the three-second rule for following distance: Find a marker on the side of the road. After the truck passes that marker, you should be able to count to three before you pass that marker.
- In general, understand that a large truck drives differently than a passenger vehicle. The sheer size and weight affect braking, accelerating, turns, blind spots, and maneuverability. Respect the needs of the truck and the truck driver.
- If you see a large truck that looks like it's in distress, steer away from the truck as soon as possible. If you see the tire tread coming loose from a truck tire, try to change lanes or increase your following distance.
- Do not maneuver to the right of a truck making a right-hand turn. Trucks need a wider area to make right turns, sometimes moving into the left lane to turn right. Do not try to squeeze to the right of the truck to go around it.
- Never cross behind a truck that is backing up. Trucks do not have rearview mirrors and may not see you cutting in behind them.
- When traveling at high speeds next to a truck, your vehicle may be pulled closer to the truck because of the air movement. Maintain control of your vehicle at all times and pay attention. Bicyclists might consider avoiding truck routes or pulling over when they see a large truck approaching at higher speeds.
- Always use safe driving practices:
  - turn your headlights on at dawn and dusk;
  - pay attention to the task of driving;
  - focus on all traffic and road users;
  - obey traffic signals;
  - don't drive, ride a bike, or walk along the roadway after drinking;
  - wear your seat belt or helmet; and
  - travel at safe speeds appropriate for road and weather conditions.

Parents should set a good example and take opportunities to discuss safe driving with young drivers. Here's a short workbook and video to aid in the discussion: http://www.cvsa.org/osd/Teens_Parents.php



When merging into a lane in front of a large truck, ***leave more space*** so the truck can adjust its safe following distance to accommodate your vehicle.

DOT HS 812 186 11627PRINT-072215-v2a

For more information, visit:
www.NHTSA.gov

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